DUCT CARBON DIOXIDE TRANSMITTER

CDDT Series

The CO_2 transmitter uses Infrared Technology to monitor CO_2 levels and outputs a linear 4-20 mA or 0-5/0-10 Vdc signal. Options include an LCD, a control relay and a resistive temperature sensor. Features include a back-lit LCD and user menu for easy installation.

PRODUCT HIGHLIGHTS

- 2 available ranges
- CO_2, & temperature outputs
- Optional slide-pot and/or override
- Optional on-board relay
- Polycarbonate weatherproof hinged enclosure

GREYSTONE
ENERGY SYSTEMS INC

SPECIFICATIONS

DESCRIPTION	ENGINEERING SPEC
POWER SUPPLY	20 – 28 Vac/dc (non-isolated half-wave rectified)
CONSUMPTIONS	**Current:** 120 mA max @ 24 Vdc, 212 mA max @ 24 Vac **Voltage:** 79 mA max @ 24 Vac, 129 mA max @ 24 Vac
OUTPUT SIGNALS	4-20 mA active (sourcing) or 0-5 Vdc / 0-10 Vac (field selectable)
OUTPUT DRIVE CAPABILITY	**Current:** 550 Ω maximum **Voltage:** 5 KΩ minimum
OUTPUT RESOLUTION	10 bit PWM
INPUT VOLTAGE EFFECT	Negligible over specified operating range
PROTECTION CIRCUITRY	Reverse voltage protected, overvoltage protected
WIRING CONNECTIONS	Screw terminal block (14 to 22 AWG)
EXTERNAL DIMENSIONS	116.5mm W x 112.5mm H x 53.7mm D (4.585” x 4.43” x 2.11”)
ENCLOSURE	IP65 (NEMA 4X)
LCD	**Resolution:** 1ppm CO_2 **Size:** 35mm W x 15mm H (1.4” x 0.6”) **Backlight:** Enable or disable via keypad
MEASUREMENT TYPE	Non-Dispersive Infrared (NDIR), diffusions sampling
MEASUREMENT RANGE	**Sensor 1:** 0-2000 ppm **Sensor 2:** 0-20,000 ppm, programmable span
STANDARD ACCURACY	+30 ppm +3% of reading (Sensor 1) 0-2000 ppm range with Auto Cal +75 ppm or 10% of reading (whichever is greater) (Sensor 2) 0-20,000 ppm range with dual channel
TEMPERATURE DEPENDENCE	0.2% FS per °C
STABILITY	**Sensor 1:** (0-2000ppm) 2 %FS over life of sensor (15 years typical) **Sensor 2:** (0-20,000ppm) <5 %FS over life of sensor
PRESSURE DEPENDENCE	0.13% of reading per mm Hg
ALTITUDE CORRECTION	Programmable from 0-5000ft via keypad
RESPONSE TIME	<2 minutes for 90% step change typical
WARM-UP TIME	<2 minutes
TEMPERATURE SENSING ELEMENT	See chart below
CONTACT RATINGS	Form A contact (N.O.), 2 Amps @ 140 Vac, 2 Amps @ 30 Vdc
OPTIONAL RELAY	**Trip Point:** Programmable via keypad **Hysteresis:** Programmable via keypad
APPROVALS	CE, RoHS
COUNTRY OF ORIGIN	Canada

Sensor Code	Temperature Sensor Description	Accuracy
02	100Ω Platinum, IEC 751, 385 alpha, 2 wire, Class B	± 0.3 °C (± 0.54 °F) @ 0 °C (32 °F)
05	1,801 Ω NTC thermistor	± 0.5 °C (± 0.9 °F) @ -20 - 50 °C (-4 - 122 °F)
06	3,000 Ω NTC thermistor	± 0.2 °C (± 0.36 °F) @ 0 - 70 °C (32 - 158 °F)
07	10,000 Ω (type 3) NTC thermistor	± 0.2 °C (± 0.36 °F) @ 0 - 70 °C (32 - 158 °F)
08	2.252 KΩ NTC thermistor	± 0.2 °C (± 0.36 °F) @ 0 - 70 °C (32 - 158 °F)
12	1000Ω Platinum, IEC 751, 385 alpha, 2-wire, Class B	± 0.3 °C (± 0.54 °F) @ 0 °C (32 °F)
13	1000Ω Nickel, DIN 43760, 2-wire, Class B	± 0.4 °C (± 0.72 °F) @ 0 °C (32 °F)

14	10,000 Ω (Type 3) NTC thermistor c/w 11 KΩ shunt	± 0.2 °C (± 0.36 °F) @ 0 - 70 °C (32 - 158 °F)
20	20,000 Ω NTC thermistor	± 0.2 °C (± 0.36 °F) @ 0 - 70 °C (32 - 158 °F)
24	10,000 Ω (Type 2) NTC thermistor	± 0.2 °C (± 0.36 °F) @ 0 - 70 °C (32 - 158 °F)
59	10,000 Ω NTC thermistor	± 1% @ 25°C (77°F), $\beta_{25/85}$ = 3435 ± 1%